

Barriers and Opportunities for Electronic Reporting Under the Clean Water Act

INTRODUCTION

This memo examines the provisions in the Federal Water Pollution Control Act, 33 U.S.C. 1251-1387 (Clean Water Act) that require reporting to EPA or the states by the regulated community, as well as EPA's rule making authority to require reporting. The purpose of reviewing the statutory provisions is to identify CWA provisions that potentially authorize, as well as create barriers to, electronic reporting of environmental data. This memo also covers provisions of the CWA that give EPA the authority to carry out rulemaking or issue permits that could offer electronic reporting to implement the Act. This memo also identifies reporting requirements for information that may be needed in enforcement cases and therefore must meet the rules of evidence if electronic reporting is implemented.

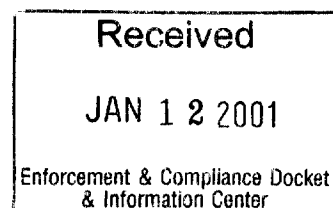
Any provision of the CWA that authorizes reporting provides an opportunity for electronic reporting. Rarely, statutory provisions will explicitly authorize electronic reporting, in addition to the more conventional paper reporting. More often, the CWA, like other statutes, requires reporting without specifying the form. In some cases, the CWA does specify aspects of reporting that could be a barrier to electronic reporting, such as a signatures, mailed reports, or a certain number of copies. Finally, some CWA provisions are ambiguous as to whether they might be used to authorize electronic reporting, such as language requiring that the reports be verifiable.

In addition to reporting requirements, the CWA gives EPA rulemaking authority to implement the statute. In many cases, EPA or the states could provide options for electronic reporting in order to implement the statute through rulemaking or permitting. This memo also identifies the CWA provisions granting rulemaking and permitting authority to EPA or the states that would allow for the incorporation of new, or modification of existing, reporting requirements to allow for electronic reporting.

This memo is organized according to the various programs of the CWA. It includes the statutory provisions for each of these programs concerning both reporting and rulemaking. This memo focuses on reporting that EPA or the states can require from the regulated community and that could at some point be used in enforcement cases.

The provisions of the CWA are categorized by the impact they could have on potential future electronic reporting requirements, both through direct reporting requirement and through indirect rule-making and permitting requirements that could include reporting:

Authorize reporting (whether directly or through rule-making/permitting) without specifying the form and thus do not pose any barrier to electronic reporting;
Have requirements that provide **potential barriers** to electronic reporting due to reliance on the paper reporting system; and



Are **ambiguous** as to whether electronic reporting is authorized or not due to conditions that may or may not on further analysis provide barriers to electronic reporting.

This memo briefly summarizes each of the relevant reporting requirements, followed by the text of the relevant statutory provisions in boxes.

SUMMARY OF THE MAIN CWA REPORTING REQUIREMENTS

Most CWA programs include some type of reporting requirements. The statutory language itself tends not to present any barriers to electronic reporting, although some provisions pose potential barriers or are ambiguous as to whether electronic reporting could be authorized or not. The CWA has not been amended since before the recent "electronic revolution." Still, the CWA does incorporate the national policy to reduce paperwork, both in the section 1251 declaration of policy and in section 1344 concerning the reduction of paperwork. EPA can use the reduction of paperwork provisions to support the incorporation of electronic reporting into the CWA regulations implementing the statute.

This memo does not analyze the regulations implementing the CWA. In general, while these regulations have many references that assume reporting will be done on paper and not electronically, the CWA statutory language is usually neutral on the issue of electronic versus paper reporting. In some cases, the Clean Water Act is ambiguous as to whether or not there is a statutory barrier to electronic reporting, while only a few provisions of the statute provide a potential barrier to electronic reporting. There are no clear barriers in the CWA to electronic reporting.

The CWA programs that require or could require information to flow from the regulated community to EPA or the states cover the following areas:

- Pretreatment standards for publicly owned treatment works (POTWs)
- Discharge permits / NPDES permits
- Total Maximum Daily Loads
- International pollution abatement
- Oil and hazardous substance discharge
- Marine discharges
- Federal facilities pollution control
- Aquaculture
- Nonpoint source management
- Sewage sludge management
- Wetlands (dredge and fill)

The main regulatory reporting requirements under the Clean Water Act are under the National Pollutant Discharge Elimination System (NPDES) program, the POTW pretreatment program, and the sewage and sludge management program. These three programs all overlap to some

extent and have extensive regulations on reporting requirements in various parts of 40 CFR.¹

Under the Clean Water Act, section 1318 provides the main statutory requirements for owners and operators of point sources to establish and maintain records and report to the Administrator. In general, the statutory provisions concerning these programs do not establish barriers to electronic reporting. However, there are several standard reporting obligations that may be more difficult to satisfy through electronic reporting. Thus, it is ambiguous whether or not these obligations might pose a barrier to electronic reporting. To a large extent it will depend on whether or not the reporting technology adopted by EPA and/or the states can guarantee the statutory obligations. In the CWA, these obligations usually include: public access to reports, confidentiality of certain information in reports, on-site government access to inspect records and reports, and on-site government access to copy reports.

In several cases, the CWA provides for enforcement in cases of unauthorized release of trade secrets and other confidential information or falsification of reports. Where the enforcement requirements allow for civil action, it is ambiguous if the statute poses a barrier to electronic reporting. Where the enforcement requirements allow for criminal action, there most likely will be a potential barrier to electronic reporting, given the higher burden of proof beyond a reasonable doubt if the reports are used as evidence in criminal enforcement actions.

SUBCHAPTER I – RESEARCH AND RELATED PROGRAMS

The CWA begins with a Congressional declaration of policy to encourage the “drastic” minimization of paperwork and the best use of available manpower and funds. Electronic reporting is consistent with this national policy.

<i>Section 1251 Congressional declaration of policy</i>	Authorizes electronic reporting
(f) It is the national policy that to the maximum extent possible the procedures utilized for implementing this chapter shall encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds , so as to prevent needless duplication and unnecessary delays at all levels of government.	

SUBCHAPTER II – GRANTS FOR CONSTRUCTION OF TREATMENT WORKS

Subchapter II sets out procedures and conditions for pretreatment of discharges to publicly owned treatment works. Although, subchapter II does not contain explicit reporting requirements, reporting has become an integral part of pretreatment programs under the regulations. Subchapter II does give EPA authority to develop regulations for pretreatment, which could include reporting. These authorizations do not present any statutory barrier to electronic reporting options under this program.

The areawide waste treatment management requirements of CWA section 1288 include a governmental planning process that must include the establishment of a regulatory program. Under the regulations in 40 C.F.R. part 403, this program includes reporting requirements, but there is no statutory barrier to electronic reporting.

<i>Section 1288(b)(2) Area-wide waste treatment - rulemaking</i>	No Barrier
Any plan prepared under such process shall include, but not be limited to - (C) the establishment of a regulatory program to - (iii) assure that any industrial or commercial wastes discharged into any treatment works in such area meet applicable pretreatment requirements;	

SUBCHAPTER III – WATER DISCHARGE STANDARDS AND ENFORCEMENT

Section 1311 requires EPA to develop effluent limitations for discharges into water. Section 1311 makes it illegal to discharge pollutants except in compliance with the law. It provides for the review and revision of effluent limitations and those effluent limitations must be applied to all point discharge sources. It is illegal to discharge radiological, chemical, or biological warfare agents, high-level radioactive waste, or medical waste; but modifications are allowed for certain nonconventional pollutants and for secondary treatment. Section 1311 also has special provisions for toxic pollutants and provides for a modified permit for coal remining operations. As the general section on effluent limitations, section 1311 does not have any specific requirements for reporting, but contains provisions authorizing rulemaking and permitting which may, in turn,

require reporting.

Under section 1311(h), EPA may issue a permit for the discharge of any pollutant from publicly owned treatment works into marine waters. These permits can only be issued after EPA has ascertained a number of things concerning the quality of the water and the impact of the discharge. Although not mentioned explicitly in the statute, reporting requirements could be built into the permit. There is nothing in the statute to provide a barrier to electronic reporting.

<i>Section 1311(h) - Discharge Permits</i>	No Barrier
The Administrator, with the concurrence of the State, may issue a permit under section 1342 of this title which modifies the requirements of subsection (b)(1)(B) of this section with respect to the discharge of any pollutant from a publicly owned treatment works into marine waters (...)	

Section 1313 covers water quality standards and implementation plans, including the states' process of identifying total maximum daily loads (TMDLs) for certain state waters. Under Section 1313(d), each state is required to identify waters for which the effluent limitations are not stringent enough and to assign TMDLs to those waters for certain pollutants in order to implement the water quality standards. States are required to submit reports to the Administrator that include the identification of the priority waters and their TMDLs. There is no barrier in the CWA to the Administrator allowing the TMDL reports to be submitted electronically.

<i>Section 1313(d)(2) Total Maximum Daily Loads - Reporting</i>	Ambiguous
(2) Each State shall submit to the Administrator from time to time, with the first such submission (...) for his approval the waters identified and the loads established (...).	

Section 1314 establishes information requirements and guidelines concerning state programs for effluent limitations, pollution discharge elimination techniques, secondary treatment alternatives, non-point source pollution, best management practices, and pretreatment. Section 1314 requires the Administrator to set minimum procedural and other elements of the states' monitoring, reporting and enforcement programs. The CWA requires the Administrator to develop guidelines setting minimum requirements and establishing uniform application forms for the acquisition of information from owners and operators of point sources of discharges subject to any state program and minimum requirements for state programs. These state guidelines must include monitoring and reporting requirements. It is ambiguous whether the statute poses a barrier to electronic reporting, depending on whether "application forms" are interpreted as paper forms or could also be interpreted as electronic forms. There is no barrier to electronic reporting in the "other minimum requirements" under the statute.

<i>Section 1314(i) Acquiring Information from Point Sources</i>	Ambiguous

1314(i) The Administrator shall (...) promulgate guidelines for the purpose of **establishing uniform application forms and other minimum requirements for the acquisition of information from owners and operators of point-sources** of discharge subject to any State program under section 1342 of this title, and (2) (...) promulgate guidelines establishing the minimum procedural and other elements of any State program under section 1342 of this title, which shall include: (A) monitoring requirements; **(B) reporting requirements (including procedures to make information available to the public) (...).**

Section 1318 contains general requirements for owners or operators of point sources to establish and maintain records, including special provisions for confidential information. It also covers the right of the Administrator and state agencies to inspect records. Section 1318 is referred to in several other sections of the CWA as the standard for various recordkeeping and reporting requirements. For example, sections 1321(m)(2)(D) on public access, 1342 on state PDES permit programs and 1344(h) on state dredge and fill programs all refer to section 1318 as the authority of their recordkeeping and reporting requirement provisions. Section 1318 has several subsections, discussed below, that may provide a barrier to electronic reporting.

Under section 1318(a), the Administrator must require the owner or operator of any point source to establish and maintain certain records whenever required to carry out the objective of the chapter (Chapter 26 on water pollution prevention and control). These records include effluent limitations, determination of violations, and any recordkeeping, reporting or inspection requirement, and the sections relating to permits and other programs. The Administrator must require recordkeeping and reporting from the owner or operator of any point source. Section 1318(a) does not present any barrier to electronic reporting.

<i>Section 1318(a) Reporting and Recordkeeping</i>	No Barrier
(a)(4)(A) the Administrator shall require the owner or operator of any point source to (i) establish and maintain such records , (ii) make such reports (...) as he may reasonably require;	

Section 1318(a) also allows the Administrator to enter the property of the owner or operator for inspections, including inspection of records and reports. This requirement could have an impact on electronic reporting. First, even with electronic reporting, under this provision the Administrator would still have the authority to enter premises in which records required to be maintained are located. The requirement to have access to and copy any records could apply to electronic reports, as well as to paper reports, as long as the Administrator would have access to the electronic files and technology would allow an inspector to copy them. It is ambiguous whether the requirement to allow the Administrator the right of entry and inspection could still be met under electronic reporting.

<i>Section 1318(a) Right of entry and Inspection</i>	Ambiguous
(4)(B) the Administrator (...) (i) shall have a right of entry to, upon, or through any premises in which an effluent source is located or in which any records required to be maintained under clause (A) of this subsection are located, and (ii) may at reasonable times have access to and copy any records , inspect any monitoring equipment or method required under clause (A), and sample any effluents which the owner or operator of such source is required to sample under such clause.	

Section 1318(b) provides for public access to records and reports. Section 1318(b) sets out the general rule that any records, reports, or information obtained under this section shall be available to the public. It provides trade secrets as the one exception. Records, reports, or information that are appropriately covered by the trade secret exception are confidential and may not be divulged to the public. The provisions for public access and confidentiality for trade

under this provision of the CWA, it must ensure that the records, reports, and other information are available to the public. Second, while ensuring public access, it must also provide safeguards to ensure the confidentiality of information qualifying under the trade secrets exception. In addition, the provision refers to title 18, section 1905 which includes criminal sanctions for improper release of confidential information.² Criminal sanctions have a higher burden of proof in court and therefore may require a different type of technology for electronic reporting or otherwise they may present a barrier.

<i>Section 1318(b) Public access and Trade secrets</i>	Potential Barrier
(b) Any records, reports, or information obtained under this section (...) (2) shall be available to the public , except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof (other than effluent data), to which the Administrator has access under this section, if made public would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information, or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18.	

Section 1318(c) addresses the role of the states in implementing this provision on recordkeeping and reporting. Each state may develop its own procedures for inspection, monitoring and entry with respect to point sources and may apply and enforce those procedures if authorized by the Administrator. This section does not explicitly include recordkeeping and reporting in the areas that may be delegated to the state. However, given the location of this provision in a section of the CWA that applies to recordkeeping and reporting as well as inspection, monitoring, and entry, the CWA suggests that states may also develop procedures for recordkeeping and reporting. Because it is ambiguous as to whether this provision concerns reporting, except tangentially through inspection, monitoring and entry requirements, it is also ambiguous how section 1318(c) affects any potential electronic reporting requirements.

<i>Section 1318(c) Role of the State - Rulemaking</i>	Ambiguous
(c) Each State may develop and submit to the Administrator procedures under State law for inspection, monitoring , and entry with respect to point sources located in such State. If the Administrator finds that the procedures and the law of any State relating to inspection, monitoring, and entry are applicable to at least the same extent as those required by this section, such State is authorized to apply and enforce its procedures for inspection, monitoring, and entry with respect to point sources located in such State (except with respect to point sources owned or operated by the United States).	

Under section 1320 on international pollution abatement, whenever the Administrator, upon receipts of reports, surveys, or studies from any duly constituted international agency, has reason to believe that pollution is occurring which endangers the health or welfare of persons in a foreign country, and the Secretary of State requests him to abate such pollution, he shall give formal notification thereof to the State water pollution control agency of the state or states in which such discharge or discharges originate and to the appropriate interstate agency, if any. The Administrator then appoints a hearing board on the issue. The hearing board is authorized to

require any person whose alleged activities result in discharges causing or contributing to pollution to file a report concerning the discharges.

Electronic reporting is not mentioned in this section, but there are several provisions that qualify how reporting shall occur. First, the hearing board prescribes the reporting forms. Presumably, such forms could be paper or electronic. Second, the report must be made under oath or otherwise as the board may prescribe. This requirement might be a barrier to electronic reporting, unless the board prescribes an alternative to a report made under oath.

<i>Section 1320(d) International Pollution Abatement - Reporting</i>	Potential Barrier
[The specially appointed hearing board] is authorized to require any person whose alleged activities result in discharges causing or contributing to pollution to file with it in such forms as it may prescribe, a report based on existing data, furnishing such information as may reasonably be required as to the character, kind, and quantity of such discharges and the use of facilities or other means to prevent or reduce such discharges by the person filing such a report. In connection with any hearing called under this subsection, the board Such report shall be made under oath or otherwise, as the board may prescribe, and shall be filed with the board within such reasonable period as it may prescribe, unless additional time is granted by it.	

In addition, Section 1320(d) provides protection for the confidentiality of trade secrets that might be included in the reported information. Again, it is unclear how such a requirement would affect the ability to develop an electronic reporting process option under this provision. This provision also incorporates 18 U.S.C. 1905. As discussed earlier, 18 U.S.C. 1905 includes criminal sanctions for wrongful release of confidential information and thus poses a potential barrier to electronic reporting.

<i>Section 1320(d) Trade Secrets</i>	Potential Barrier
Upon a showing satisfactory to the board by the person filing such report that such report or portion thereof (other than effluent data), to which the Administrator has access under this section, if made public would divulge trade secrets or secret processes of such person, the board shall consider such report or portion thereof confidential for the purposes of section 1905 of title 18.	

Finally, Section 1320(d) provides sanctions for persons who fail to file their reports on time. It is ambiguous how this requirement to meet a specific time limit would affect EPA's ability to provide for electronic reporting. Electronic reporting would have to provide assurances or proof of timely delivery on the part of the person responsible for reporting, at the very least such sanctions could act as a deterrent to electronic reporting.

<i>Section 1320(d) Time Requirements for Reporting</i>	Ambiguous

If any person required to file any **report** under this paragraph **shall fail to do so** within the time fixed by the board for filing the same, and such failure shall continue for thirty days after notice of such default, such person shall forfeit to the United States the sum of \$1,000 for each and every day of the continuance of such failure, which forfeiture shall be payable into the Treasury of the United States, and shall be recoverable in a civil suit in the name of the United States in the district court of the United States where such person has his principal office or in any district in which he does business. The Administrator may upon application therefor remit or mitigate any forfeiture provided for under this subsection.

Section 1321 of the CWA imposes liability for the discharge of oil and hazardous substances into navigable freshwater, shorelines, and marine waters. Under Section 1321(b), any person in charge of a vessel or facility must notify the appropriate U.S. government agency of the discharge. Notification under Section 1321(b) must be given immediately, as soon as the person in charge has knowledge of any discharge of oil or a hazardous substance from such vessel or facility in violation of this subsection. In addition, Section 1321(b) includes specific enforcement sanctions to be brought against any person who fails to notify immediately, including conviction of perjury or for giving a false statement.

It is ambiguous how much both the requirement that notification be given immediately and the enforcement sanction impact EPA's ability to use electronic reporting for notification under Section 1321. The enforcement sanctions are similar to those in most other reporting requirements under environmental statutes so the question is whether perjury or false statement can be proven when electronic reporting is used. The issue of immediate notice is similar to other notice requirements in cases of emergency discharges. It assumes a reliable, verifiable way to meet certain time limits and to prove later that the time limits were met or not met. An electronic reporting option under this section would have to satisfy these criteria to comply with the CWA. In addition, these enforcement provisions include criminal sanctions. As discussed earlier, criminal sanctions pose a potential barrier to electronic reporting due to the higher burden of proof that must be satisfied and the need to prove actual knowledge of a discharge.

<i>Section 1321(b) Oil and Hazardous Substance Discharges: Criminal sanctions</i>	Potential barrier
(5) Any person in charge of a vessel or of an onshore facility or an offshore facility shall, as soon as he has knowledge of any discharge of oil or a hazardous substance from such vessel or facility in violation of paragraph (3) of this subsection, immediately notify the appropriate agency of the United States Government of such discharge. The Federal agency shall immediately notify the appropriate State agency of any State which is, or may reasonably be expected to be, affected by the discharge of oil or a hazardous substance. Any such person (...) who fails to notify immediately such agency of such discharge shall, upon conviction, be fined in accordance with title 18, or imprisoned for not more than 5 years, or both. Notification received pursuant to this paragraph shall not be used against any such natural person in any criminal case, except a prosecution for perjury or for giving a false statement.	

Section 1321(c) requires owners and operators involved in discharge and cleanups of oil and hazardous substances to act in accordance with the National Contingency Plan and the applicable response plan. These plans contain reporting and notification provisions that provide opportunities for electronic reporting. In addition, the President or the Federal On-Scene Coordinator can change the response plan to provide for a more expeditious or effective response, which would allow the Federal On-Scene Coordinator to authorize electronic reporting, even up to the last minute, if the circumstances of the spill or the mitigation efforts would benefit from it.

<i>Section 1321(c)(3)(B) Cleanup Actions - Reporting</i>	No Barrier
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An owner or operator participating in efforts under this subsection shall act in accordance with the National Contingency Plan and the applicable response plan required under subsection (j) of this section, or as directed by the President, except that the owner or operator may deviate from the applicable response plan if the President or the Federal On-Scene Coordinator determines that **deviation from the response plan would provide for a more expeditious or effective response** to the spill or mitigation of its environmental effects.

Under section 1321(d), the National Contingency Plan, prepared by the President, provides for coordinated action to minimize damage from oil and hazardous substance discharges. It must include a system of surveillance and notice designed to ensure earliest possible notice of discharges of oil and hazardous substances and imminent threats of such discharges to the appropriate State and Federal agencies. The President has the ability to amend the Plan and therefore the authority to include electronic reporting.

<i>Section 1321(d) National Contingency Plan - Notice</i>	No Barrier
(2) (...) The National Contingency Plan shall provide for efficient, coordinated, and effective action to minimize damage from oil and hazardous substance discharges, including containment, dispersal, and removal of oil and hazardous substances, and shall include, but not be limited to, the following: (D) A system of surveillance and notice designed to safeguard against as well as ensure earliest possible notice of discharges of oil and hazardous substances and imminent threats of such discharges to the appropriate State and Federal agencies. (3) (...) The President may, from time to time, as the President deems advisable, revise or otherwise amend the National Contingency Plan.	

Under section 1321(j), the President shall issue regulations to help prevent discharges, including governing the inspection of vessels carrying cargoes of oil and hazardous substances. Although not explicitly included in the statute, such regulations could conceivably include reporting or notification requirements, that in turn, could provide the option of electronic reporting.

<i>Section 1321(j)(1) National Response System - Rulemaking</i>	Ambiguous
Consistent with the National Contingency Plan(...), the President shall issue regulations consistent with maritime safety and with marine and navigation laws (...) (D) governing the inspection of vessels carrying cargoes of oil and hazardous substances and the inspection of such cargoes in order to reduce the likelihood of discharges of oil from vessels in violation of this section.	

Section 1321(m) contains specific recordkeeping, reporting and entry and inspection provisions for owners and operators of facilities under this section. Owners or operators of facilities must establish and maintain records, make reports, and provide "other information" as required. In addition, the Administrator may enter and inspect facilities where records are kept, as well as have access to and make copies of records. In general, this section does not contain any barriers to electronic reporting. However, it is ambiguous how the right to enter, inspect, access and copy records would work with electronic reporting.

<i>Section 1321(m)(2) Recordkeeping, Reporting, Inspection</i>	Ambiguous

(A) (...) Whenever required to carry out the purposes of this section, the Administrator or the Secretary of the Department in which the Coast Guard is operating shall require the owner or operator of a facility to which this section applies to **establish and maintain such records, make such reports, (...) and provide such other information** as the Administrator or Secretary, as the case may be, may require to carry out the objectives of this section. (B) (...) Whenever required to carry out the purposes of this section, the Administrator or the Secretary of the Department in which the Coast Guard is operating or an authorized representative of the Administrator or Secretary, upon presentation of appropriate credentials, may - (i) **enter and inspect** any facility to which this section applies, including **any facility at which any records are required to be maintained** under subparagraph (A); and (ii) at reasonable times, **have access to and copy any records** (...).

Finally, reports received under section 1321 must be publicly accessible as discussed earlier under CWA section 1318. Again, it is ambiguous how requirements for public accessibility and exemptions for trade secrets will affect electronic reporting.

<i>Section 1321(m)(2)(D) Public Access - Reporting</i>	Ambiguous
Any records, reports, or information obtained under this paragraph shall be subject to the same public access and disclosure requirements which are applicable to records, reports, and information obtained pursuant to section 1318 of this title.	

Section 1322 regulates marine sanitation devices or equipment for installation on-board a vessel that is designed to receive, retain, treat or discharge sewage and any sewage treatment process in order to prevent the discharge of untreated or inadequately treated sewage into or upon the navigable waters. Section 1322(g) puts the burden of recordkeeping and reporting on the manufacturer of marine sanitation devices. The statute requires manufacturers to establish and maintain records and to make reports, as required by the Administrator, to verify that they are in compliance with this section. There is nothing in the basic recordkeeping and reporting requirement that poses a barrier to electronic reporting.

<i>Section 1322(g)(3) Marine Sanitation Devices: Reporting</i>	No Barrier
Every manufacturer shall establish and maintain such records, make such reports, and provide such information as the Administrator or the Secretary of the department in which the Coast Guard is operating may reasonably require to enable him to determine whether such manufacturer has acted or is acting in compliance with this section and regulations issued thereunder.	

Also under section 1322(g), the manufacturers of marine sanitation devices must permit the Administrator to have access to and to copy such records. Although a manufacturer could provide access to and allow copies to be made of electronic reports, as well as paper reports, the electronic format may raise questions as to ease of verification on site for inspecting officials and ability to make copies of electronic information. It is ambiguous to what extent providing a right of access and the right to make copies poses a barrier to electronic reporting.

<i>Section 1322(g)(3) Marine Sanitation Devices: Right of Access and Copies</i>	Ambiguous
(...) and shall, upon request of an officer or employee duly designated by the Administrator or the Secretary of the department in which the Coast Guard is operating, permit such officer or employee at reasonable times to have access to and copy such records .	

Section 1322(g) protects the confidentiality of information identified as trade secrets for the purposes of section 1322. Again, the potential difficulty with marking certain information as confidential in electronic reports, as opposed to paper reports, could conceivably pose a barrier to electronic reporting. Section 1322 also incorporates the criminal sanctions in 18 U.S.C. 1905, thereby posing a potential barrier to electronic reporting, as discussed earlier.

(...) All information reported to or otherwise obtained by the Administrator or the Secretary of the Department in which the Coast Guard is operating or their representatives pursuant to this subsection which contains or relates to a **trade secret** or other matter referred to in section 1905 of title 18 shall be considered **confidential** for the purpose of that section (...)

Section 1322(h) provides for enforcement of the recordkeeping and reporting requirements for marine sanitation devices, especially in the context of their operability. The statute specifically makes it unlawful for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under section 1322. These enforcement provisions underline the importance of ensuring that the reports can be verified and introduced as evidence in court if necessary. It is ambiguous how the enforcement of the access and copying requirements might impact the use of electronic reporting.

<i>Section 1322(h)(3) Marine Sanitation Devices: Enforcement</i>	Ambiguous
After the effective date of standards and regulations promulgated under this section, it shall be unlawful - (3) for any person to fail or refuse to permit access to or copying of records or to fail to make reports or provide information required under this section;	

Under section 1323, federal facilities engaged in any activity resulting in the discharge of pollutants are subject to, and must comply with, all requirements, administrative authority, process and sanctions respecting the control and abatement of water pollution. The statute explicitly states that these requirements include any recordkeeping or reporting requirements. This requirement in itself provides no barrier to electronic reporting, but there may be limits to federal facility reporting by electronic methods as described in specific CWA programs regulating various types of discharges, discussed elsewhere in this memo.

<i>Section 1323(a) Federal Facility Permits: Reporting</i>	Ambiguous
Each department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants, and each officer, agent, or employee thereof in the performance of his official duties, shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity including the payment of reasonable service charges. The preceding sentence shall apply (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement , any requirement respecting permits and any other requirement, whatsoever) (...)	

Section 1328 provides permits for the discharge of pollutants under approved aquaculture projects. The CWA requires the Administrator to establish procedures and guidelines by regulation to carry out this section. Thus, section 1328 gives authority to the Administrator to establish regulations that can be interpreted to include reporting requirements. There is nothing in section 1328 that would limit the Administrator's ability to provide an option for electronic reporting.

<i>Section 1328(b) Aquaculture: Rulemaking</i>	No Barrier
The Administrator shall by regulation establish any procedures and guidelines which the Administrator deems necessary to carry out this section.	

Section 1329 requires states to compile assessment reports of their nonpoint source management

programs. The Governor is required to submit a report to the Administrator identifying the nonpoint sources of pollution and the process underway in the state to combat such pollution. Nothing in the CWA's description of the reports presents any barrier to electronic reporting.

Section 1329(a) Nonpoint Source Management: Reporting	No Barrier
The Governor of each State shall , after notice and opportunity for public comment, prepare and submit to the Administrator for approval, a report (...)	

Nonpoint source grants from EPA to states require annual reports. Under the grant program, each state must report to the Administrator on an annual basis concerning its progress in meeting the milestones set out in the CWA and concerning any reductions in nonpoint source pollution. Again, there is nothing in the nonpoint source grant program reporting requirements to present a barrier to electronic reporting.

Section 1329(h)(11) Nonpoint Source State Grants: Reporting	No Barrier
Each State shall report to the Administrator on an annual basis concerning (A) its progress in meeting the schedule of milestones submitted pursuant to subsection (b)(2)(C) of this section, and (B) to the extent that appropriate information is available, reductions in nonpoint source pollutant loading and improvements in water quality for those navigable waters or watersheds within the State which were identified pursuant to subsection (a)(1)(A) of this section resulting from implementation of the management program.	

SUBCHAPTER IV - WATER DISCHARGE PERMITS AND LICENSES

CWA section 1342 regulates the national pollutant discharge elimination system (NPDES). Under section 1342(a)(2), the Administrator shall prescribe conditions for all state and EPA water discharge permits to assure compliance, including conditions on data and information collection, reporting, and such other requirements as he deems necessary. Thus, reporting requirements explicitly are part of permits under the CWA. This provision does not contain barriers to electronic reporting although, in general, the CWA may pose barriers to electronic reporting, such as the requirements concerning trade secrets discussed below. Current EPA regulations implementing the NPDES system may pose further barriers to electronic reporting through specific requirements that assume the use of paper reporting.³ These include requirements concerning certification, documents in writing, signatures, forms or lists, maps or diagrams, fact sheets, use of mail, copies, and summaries. On the other hand, several EPA regulations under the NPDES program specifically support electronic reporting.⁴

Section 1342(a)(2) NPDES Permit Reporting	No Barrier
The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting , and such other requirements as he deems appropriate.	

State permit programs are required to have adequate authority to issue permits to insure compliance and to inspect, monitor, enter, and require reports to at least the same extent as required in section 1318 on records, reports and inspections. As discussed under section 1318, it is ambiguous whether electronic reporting would be able to meet the section 1318 requirements for public access, inspection, and honoring of trade secrets. In addition, section 1318 incorporates the criminal sanctions from 18 U.S.C. 1905, which could pose a barrier to electronic reporting due to the higher burden of proof.

<i>Section 1342(b)(2) State PDES Programs</i>	Ambiguous/Potential Barrier
(A) To issue permits which apply, and insure compliance with, all applicable requirements of section 1318 of this title; or (B) To inspect, monitor, enter, and require reports to at least the same extent as required in section 1318 of this title;	

Section 1342 requires permits for municipal and industrial stormwater discharges and contains provisions relevant to reporting. The Administrator is required to issue regulations concerning municipal and industrial stormwater discharges, establishing a comprehensive program to regulate designated sources. The CWA does not specifically require that reporting be part of the regulations, but it does say that the program shall establish requirements for state stormwater management programs. Such programs could conceivably include reporting requirements. There is no barrier in this section to electronic reporting.

<i>Section 1342(p)(6) Rulemaking authority for stormwater programs</i>	No Barrier
Not later than October 1, 1993, the Administrator, in consultation with State and local officials, shall issue regulations (based on the results of the studies conducted under paragraph (5)) which designate stormwater discharges, other than those discharges described in paragraph (2), to be regulated to protect water quality and shall establish a comprehensive program to regulate such designated sources. The program shall, at a minimum, (A) establish priorities, (B) establish requirements for State stormwater management programs, and (C) establish expeditious deadlines. The program may include performance standards, guidelines, guidance, and management practices and treatment requirements, as appropriate.	

Section 1344 requires permits for dredging or filling activities in wetlands. The Secretary of the Army, acting through the Corps of Engineers, may issue individual or general permits for the discharge of dredged or fill materials into navigable waters. The CWA does not specify that the permits must contain any recordkeeping or reporting requirements, although they could conceivably include these requirements to monitor and ensure compliance. The statute poses no barrier to electronic reporting options for any reporting requirements that would be imposed as part of a federal permit under this section.

<i>Section 1344 Permits for dredged or fill material</i>	No Barrier
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(a) The Secretary **may issue permits**, after notice and opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites. (...) (e) (1) In carrying out his functions relating to the discharge of dredged or fill material under this section, the Secretary may, after notice and opportunity for public hearing, **issue general permits** on a State, regional, or nationwide basis (...) Any general permit issued under this subsection shall (A) be based on the guidelines described in subsection (b)(1) of this section, and (B) **set forth the requirements and standards which shall apply to any activity** authorized by such general permit.

Under section 1344(h), states may create their own programs to regulate dredge and fill activities under the Clean Water Act. Once a state program is approved, the state gains the authority to issue permits which apply and assure compliance with all applicable requirements of section 1318. Section 1318 requires recordkeeping, reporting, and access for inspections, as described above. States must allow for inspection, monitoring, entry, and require reports to at least the same extent as required in section 1318. This provision also incorporates section 1318's reference to 18 U.S.C. 1905 providing for criminal sanctions to protect the confidentiality of trade secrets, thus, providing a potential barrier to electronic reporting, as discussed above for section 1318.

<i>Section 1344(h) State dredge and fill permit programs: Reporting</i>	Potential Barrier
[The State will gain authority] (1)(B) To issue permits which apply, and assure compliance with, all applicable requirements of section 1318 of this title, or to inspect, monitor, enter, and require reports to at least the same extent as required in section 1318 of this title.	

Section 1344(q) requires minimization of duplication and needless paperwork. This provision applies to the issuance of permits for dredge and fill; however, it is indicative of a wider CWA goal to reduce paperwork. Electronic data transfer, including electronic reporting, is one solution to help with the reduction of paperwork.

<i>Section 1344(q) Paperwork reduction</i>	Authorizes Electronic Reporting
(...) the Secretary shall enter into agreements with the Administrator, the Secretaries of the Departments of Agriculture, Commerce, Interior, and Transportation, and the heads of other appropriate Federal agencies to minimize, to the maximum extent practicable, duplication, needless paperwork , and delays in the issuance of permits under this section. Such agreements shall be developed to assure that, to the maximum extent practicable, a decision with respect to an application for a permit under subsection (a) of this section will be made not later than the ninetieth day after the date the notice for such application is published under subsection (a) of this section.	

Section 1344(s) provides for sanctions in the case of permit violations and implies sanctions also for violation of any reporting requirements under this section. The Secretary of the Army must issue compliance orders or bring civil actions where necessary. The compliance orders must be delivered by personal service, and violators may be liable for civil penalties. It still may be possible to use electronic reporting for dredge and fill permits, but the technology used for such reporting would have to be adequate to satisfy the rules of evidence for proving such a permit violation occurred.

<i>Section 1344(s) Enforcement of dredge and fill permits</i>	Ambiguous
(1) Whenever on the basis of any information available to him the Secretary finds that any person is in violation of any condition or limitation set forth in a permit issued by the Secretary under this section, the Secretary shall issue an order requiring such person to comply with such condition or limitation, or the Secretary shall bring a civil action in accordance with paragraph (3) of this subsection.	

Administrator or the states issues the permit. In general, permits issued under the NPDES of section 1342 are required to include standards for disposal or use of sewage sludge. Thus, as discussed earlier, there are no barriers to electronic reporting under NPDES permits. If a sewage treatment works is not subject to an NPDES permit, the Administrator may issue a permit for the use and disposal of sludge and is required to include appropriate requirements to assure compliance. There are no statutory barriers to electronic reporting in this section, but EPA's regulations implementing sewage sludge management include extensive reporting requirements⁵ and contain many potential barriers to electronic reporting, such as certification, documents in writing, signatures, forms or lists, fact sheets, and newspaper publication.

<i>Section 1345(f)(2) Disposal or use of sewage sludge: Permitting</i>	No Barrier
(...) the Administrator may issue a permit to such treatment works solely to impose requirements for the use and disposal of sludge that implement the regulations established pursuant to subsection (d) of this section. The Administrator shall include in the permit appropriate requirements to assure compliance with the regulations established pursuant to subsection (d) of this section.	

SUBCHAPTER V - GENERAL PROVISIONS

CWA section 1361 authorizes the Administrator to prescribe regulations as necessary to implement the Act. This overarching provision gives EPA the authority to implement various regulatory tools, including reporting, and provides no barriers to electronic reporting.

<i>Section 1361(a) Administration: Authority to regulate</i>	No Barrier
The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter.	

Under CWA section 1365, citizens may commence a civil action on his own behalf to enforce the CWA. Citizens are required to give notice of the alleged violation to the Administrator, among others. There is no statutory barrier to citizen notice being allowed through electronic means.

<i>Section 1365 Citizen Enforcement Suits: Notice</i>	No Barrier
(b) No action may be commenced - (1) under subsection (a)(1) of this section - (A) prior to sixty days after the plaintiff has given notice of the alleged violation (i) to the Administrator, (...) Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.	

Electronic reporting can become an issue in the verification of documents and other information in administrative procedures and judicial review. Section 1369(a) of the CWA allows the Administrator to issue subpoenas for the production of relevant papers, books, and documents. This section explicitly refers to "papers" and "documents," leaving the form of the document unclear. There is nothing in this section that would clearly hamper subpoenas of electronic

documents, however, it is ambiguous from the statute and would most likely need to be clearly stated in regulations or elsewhere if electronic reports are considered to fall within the definition of "documents" for purposes of enforcement under the CWA and this section.

<i>Section 1369(a) Judicial Review: Subpoenas</i>	Ambiguous
(1) For purposes of obtaining information under section 1315 of this title, or carrying out section 1367(e) of this title, the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents , and he may administer oaths. (...) (2) The district courts of the United States are authorized, upon application by the Administrator, to issue subpoenas for attendance and testimony of witnesses and the production of relevant papers, books, and documents, for purposes of obtaining information under sections 1314(b) and (c) of this title. (...)	

¹ NPDES Program, see 40 CFR Parts 122, 123 and 125. POTW Pretreatment, see 40 CFR Part 403. Sewage Sludge Management, see 40 CFR Parts 501 and 503. Also, see ELI memo of March 9, 1999 concerning the study of EPA regulations potentially affected by electronic reporting.

² Sec. 1905. Disclosure of confidential information generally. "Whoever, being an officer or employee of the United States or of any department or agency thereof, any person acting on behalf of the Office of Federal Housing Enterprise Oversight, or agent of the Department of Justice as defined in the Antitrust Civil Process Act (15 U.S.C. 1311-1314), publishes, divulges, discloses, or makes known in any manner or to any extent not authorized by law any information coming to him in the course of his employment or official duties or by reason of any examination or investigation made by, or return, report or record made to or filed with, such department or agency or officer or employee thereof, which information concerns or relates to the trade secrets, processes, operations, style of work, or apparatus, or to the identity, confidential statistical data, amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or association; or permits any income return or copy thereof or any book containing any abstract or particulars thereof to be seen or examined by any person except as provided by law; shall be fined under this title, or imprisoned not more than one year, or both; and shall be removed from office or employment."

³ 40 CFR Part 122, 123, and 125. See, ELI memo of March 9, 1999 on a study of EPA regulations potentially affected by electronic reporting.

⁴ 40 CFR Part 122.4(a), 40 CFR Part 122.62(a)(3)(i)(B).

⁵ Sewage Sludge Management 40 CFR Part 501 and 503.